

Program Area 3: Waste Reduction and Recycling

I. Introduction and Background

Nearly everything we do creates some type of waste. Waste can be considered lost resources, and in today's world of ever decreasing natural resources we must find ways to decrease our waste generation in order to become a more sustainable society.

In 2004, residents of Colorado generated over 7.5 million tons of solid waste, an increase of approximately 60% from 1995. The Environmental Protection Agency estimates that each Coloradoan generates 6.1 pounds of waste per person per day and that the national average for waste generation is 4.5 pounds per person per day. As you can see, Colorado is behind the national average and has many opportunities for improvement. One of the reasons for Colorado having a higher waste generation rate is the fact that we have some of the lowest solid waste tipping fees in the country. Colorado's tipping fees are 3 to 4 times less than those in the northeast and Atlantic coast and in turn this creates a greater challenge for waste reduction and recycling due to economic factors.

With thousands of employees in state government, and facilities that service hundreds of thousands of customers, state operations generate thousands of tons of waste every year. It is the responsibility of the state to take a leadership role in reducing the amount of waste we generate and to increase the amount of material we recycle in an efficient, economical way.

II. Environmental and Economic Benefits

Reducing our waste, and recycling what waste we do generate, provides both economic and environmental benefits for Colorado and state agencies. A strong waste reduction and recycling program can:

- Reduce the extraction of natural resources and minimize the associated environmental impacts – Waste prevention and recycling of paper products allow more trees to remain standing in the forest, where they can continue to remove carbon dioxide from the atmosphere.
- Save energy and water through the utilization of recycled materials in manufacturing processes – Recycling one aluminum can saves enough energy to power the average TV for 3 hours.
- Preserve open space by eliminating the need for more disposal capacity and save local governments money by reducing the need to construct more sanitary landfills.
- Protect air and water resources by reducing emissions from the generation of landfill gas, minimize surface water run-off, and reducing generation of leachate which must be managed and treated from landfills.

- Save money through the reduction of unnecessary equipment and supply purchases by re-using existing supplies.

By implementing successful waste prevention programs, agencies can avoid disposal costs altogether (leasing rather than purchasing equipment). A comprehensive prevention program can also benefit from cost savings associated with not purchasing a product in the first place. The Colorado Department of Public Health and Environment recently reduced the number of copiers they were leasing from 31 to 28 saving approximately \$13,000 per year in the process. Waste management contracts can also be restructured to include more recycling services; many times this will reduce the amount state agencies pay for waste disposal.

III. Existing Waste Reduction/Recycling Efforts

- The Colorado Department of Public Health and Environment currently recycles the following materials: Glass, Aluminum, Plastic #1 and #2, Newspaper, Magazines, Office Paper, Phonebooks, Cardboard, Paperboard, Junkmail, Batteries and Cell Phones.

IV. Waste Reduction/ Recycling Statewide Strategies

- The Waste Reduction/Recycling Subcommittee should compile relevant resources to assist agencies in developing waste reduction programs including:
 - Case studies and fact sheets on waste reduction/recycling
 - Sample policies and programs
 - Educational Materials
 - List of resources to assist with waste reduction/recycling programs
 - Technical assistance and incentives
 - Model recycling specifications for contracts and lease agreements
- The Department of Personnel and Administration should disseminate information about any recycling/solid waste contracts that may be accessed to assist and improve agency waste reduction programs.
- The Department of Personnel and Administration should work with the Waste Reduction/Recycling Subcommittee to ensure that reporting requirements for vendors are included on statewide recycling/solid waste contracts. This will help agencies with tracking and reporting solid waste and recycling numbers.

- The Department of Personnel and Administration should work with the Waste Reduction/Recycling Subcommittee to examine the state's surplus property program and ensure equipment and furniture is reused or recycled to the maximum extent possible. The Waste Reduction/Recycling Subcommittee should also review other common office supplies that get sent to the landfill and determine if there is a potential market for these items to go to non-profit organizations instead.

V. Waste Reduction/Recycling Agency Strategies

To help reach waste reduction/recycling goals, agencies should:

- Consider conducting a waste assessment to identify the types and amounts of waste generated at your facility.
 - Use this assessment to establish a baseline for the amount of waste you generate (volume and costs of waste management)
 - Use this assessment to determine if there are items that go to the landfill that can easily be recycled.
 - Establish waste reduction/recycling goals based on your findings in the waste assessment.
- Waste Assessment Resources:
 - WasteWise has information on how to conduct a waste assessment at www.epa.gov/wastewise/ You will need to join EPA's WasteWise program in order to use their guidance materials- membership is free.
- Each agency should make information available to employees on how they can reduce and recycle waste generated in their homes and away from the office.

Action Steps to Waste Reduction and Recycling

A variety of short-term actions state facilities can take to reduce their environmental impacts.

- Establish and promote a double-sided printing policy to ensure that internal and external documents are printed 2-sided.
- Require RFP bid submissions to be double-sided and ask for them without extraneous materials.
- Establish designated office supply reuse centers or areas in offices to allow for unused or reusable supplies to be available, such as:

- Binders, file folders, staplers, paper clips, pens, notepads, in boxes, and other supplies.
- Initiate a paper reduction campaign:
 - Measure paper purchases/use and set a goal for reduction.
 - Establish procedures with your local printer or print shop so that all documents from your agency are printed/copied double sided.
 - Have your agency convert personnel forms and leave slips to an electronic system
- Utilize the web and other electronic media for distribution of documents and miscellaneous materials. For example:
 - Use e-mail distribution lists.
 - Store timesheets, invoices, and stationary electronically
 - Provide newsletters to staff electronically rather than making hard copies to distribute
- Distribute information on how to reduce the amount of junk mail received within the agency and at home. Visit <http://www.dmaconsumers.org/cgi/offmailinglist#moreinformation> to get your name on the "do not mail list".
- Lease equipment or supplies when possible to reduce waste and save money on disposal cost.
- Review policy for the replacement of computers and monitors. Monitors are often replaced prematurely. By replacing them less often you can many times upgrade from CRT to LCD monitors that last longer, have much less toxic material in them and are easier on the eyes.
- Focus your recycling program on the most commonly generated materials at your facility – these materials can be identified through a waste assessment and will provide the biggest "bang for your buck" when initiating a new program.
- Choose appropriate recycling bins for specific materials, and place them in appropriate locations at the facility:
 - Placing recycling bins near trashcans reduces the likelihood that employees will throw trash into the recycling bin.
- Place large, clear signage in appropriate locations throughout your facility to increase employee awareness of your recycling program.
- Publicize your recycling data results to your employees so they know how they are doing. Challenge employees to continually improve their recycling rate every year.